ened EDT ≤150 ms in AF group as well as in SR group (all p <0.005 by the log-rank test). Using multivariate Cox analysis, a shortened EDT was identified as a powerful independent predictor of survival in AF group (exponential of coefficient: 0.96, chi-square: 5.8; p=0.0016) as well as in SR group (exponential of coefficient: 0.98, chi-square: 9.6; p=0.0019). **Conclusion.** In patients with LV systolic dysfunction, a shortened deceleration time of mitral E wave by Doppler appears to predict a similar poor prognosis in patients with AF as with SR.

5:00 p.m.

823-5 Prognostic Significance of Mitral Regurgitation Identified Using Color Doppler Echocardiography Early After Acute Myocardial Infarction

Graham Hillis, Jacob Moller, Patricia Pellikka, Jae Oh, Mayo Clinic, Rochester, MN

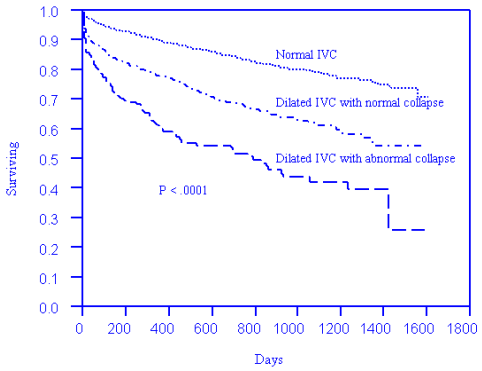
Background: Echocardiographic evidence of mitral regurgitation (MR) is frequently noted early after acute myocardial infarction (MI). Despite this, there are very few data regarding the clinical correlates and prognostic significance of MR in this setting. The current study addresses these issues.
Methods: Between January 1999 and July 2001, 793 patients admitted to St Mary's Hospital, Rochester, Minnesota with acute MI had a clinically indicated transthoracic echocardiogram during their index admission. The severity of MR could be accurately assessed in 737 (93%) patients. Mitral regurgitation was graded on a 5 point scale. Patients were followed up a median of 19 months later. The study end-point was death from all causes.
Results: In 320 (43%) patients no/trivial MR was detectable, in 320 (43%) mild MR (grade 1) was present, in 74 (10%) it was moderate (grade 2), in 15 (2%) it was moderate to severe (grade 3) and in 4 (< 1%) it was severe (grade 4). The prevalence of MR increased with age and it was more common in women and in patients with a history of diabetes, hypertension, prior MI or previous revascularization. It was less prevalent in current smokers and those with ST-elevation MI. Patients who underwent percutaneous coronary intervention during their index admission were less likely to have MR, whereas this was more common in patients with multivessel coronary disease. Patients with MR had worse left ventricular (LV) systolic function, more LV dilatation and more clinical evidence of left heart failure. Vital status was available for 708 patients (96%), of whom 165 (23%) died during follow-up. Patients with moderate or greater MR had worse survival than those with no MR (risk ratio 3.0, 95% CI 1.9 - 4.5, p < 0.0001) or those with no or mild MR (risk ratio 2.3, 95% CI 1.6 – 3.2, p < 0.0001). Even mild MR predicted a worse survival, when compared to no MR (risk ratio 1.7, 95% CI 1.2-2.4, p = 0.004). However, MR was not independently predictive of outcome.
Conclusion: Mitral regurgitation, identified by color Doppler echocardiography, early after acute MI is associated with a poorer survival. However, this is determined not by the MR *per se* but by related factors – such as increased age and worse LV systolic function.

5:15 p.m.

823-6 Dilated Inferior Vena Cava: A Marker of Poor Survival

Jayant Nath, Paul A. Heidenreich, VA Palo Alto Heath Care System, Palo Alto, CA

Background: Inferior vena cava (IVC) size and response to respiration are known to be associated with right atrial (RA) pressure but their long term prognostic value is unclear. **Methods:** We retrospectively identified 5477 consecutive patients undergoing echocardiography at one of the three Veterans Affairs laboratories with a mean follow up of 523 ± 443 days. Patients were categorized in one of three groups: IVC size ≤ 2 cm at RA-junction, IVC size > 2 cm with ≥ 50% collapse and IVC size > 2 cm with <50% collapse. Kaplan-Meier and proportional hazards methods were used for survival analysis. **Results:** Dilated IVC with normal collapse was seen in 742 (13%) patients and dilated IVC with abnormal collpase was present in 232 (4%) patients. Compared to normals, patients with dilated IVC were older (68.8 ± 12.0 vs 66.2 ±12.9 years) and had tricuspid regurgitation (TR) of at least moderate severity (70% vs. 9%) and lower left ventricular ejection fraction (LVEF) (38.7 ±16.7 vs 55.9 ±10.8 %) and higher pulmonary artery systolic pressure (41.2 ±13.8 vs. 29.3 ± 9.5 mm Hg). Patients with a dilated IVC had worse survival than those with no dilation (Figure). When adjusted for age , LVEF, pulmonary artery systolic pressure and significant (moderate and severe) TR, patients with dilated IVC with normal collapse (risk ratio= 1.27, p<.05) and dilated IVC without collapse (risk ratio=1.90, p<0.001) had significantly poorer survival than those normal IVC. **Conclusions:** Dilated IVC with or without collapse is associated with a poor prognosis.



POSTER SESSION

1131 Transesophageal Echocardiography: For Assessing Thrombi, Atheromas, and Other Cardiac Abnormalities

Tuesday, March 09, 2004, 9:00 a.m.-11:00 a.m.
Morial Convention Center, Hall G
Presentation Hour: 10:00 a.m.-11:00 a.m.

1131-141 Transesophageal Echocardiographic Risk Markers of Thromboembolism Are Present in Patients With Lone Atrial Fibrillation

Emanuele Di Angelantonio, Nadia Benyounes, Stephane Ederhy, Olivier Belliard, Franck Boccara, Ariel Cohen, Saint Antoine University Hospital, Assistance Publique-Hôpitaux de Paris and Université Paris VI, Paris, France

Background. Although transthoracic (TTE) and transesophageal echocardiography (TEE)-derived parameters are strong predictors of thromboembolism in patients with atrial fibrillation (AF), their magnitude in patients with lone AF (LAF) is currently unknown.
Methods. We prospectively compared clinical and echocardiographic risk markers in 280 pts with non valvular af (NVAF) and 91 pts without any cardiovascular risk factor or evidence of heart disease, classified as LAF (68.1% were male, 54.9% were aged >60, 37.4% had a past history of af and a paroxysmal form was present in 41,8%). The following parameters were evaluated: left atrial (LA) and LA appendage (LAA) areas, spontaneous echo contrast (SEC), laa blood flow velocity, LAA thrombus and aortic atheroma.
Results. LAF patients with LA/LAA SEC were older (p = 0,007), had more frequently persistent AF and the episode of AF had lasted longer than 48 hours. LAA area was significantly larger in those with LA/LAA SEC, while LAA flow velocities were not significantly different. Multivariate analysis identified LA area (or 1,14, 95%ci 1,04-1,25 ; p=0,004) and persistent LAF (or 4,23, 95%ci 1,06-16,92; p=0,041) as the only variables independently associated with LA/LAA SEC in LAF patients.
Conclusion. TEE risk marker of thromboembolism are present in LAF patients, although to a lesser extent than in pts with other NVAF. Besides age, TEE could be useful to document the presence of a thrombogenic milieu in a subroup of pts, and thus influence the anticoagulant regimen.

	Lone AF (N = 91)	**NVAF** (N = 280)	**p**
Left atrial area	19.5±6.6	22.6±6.1	<0.001
LAA Area	4.6±+1.9	4.7±1.9	0.459
LAA filling Velocity	38.5#177;17.8	35.4#177;15.3	0.114
LAA emptying Velocity	40.7±17.9	39.8±15.4	0.673
LA/LAA SEC (N, %)	26 (28.9)	135 (50.8)	<0.001
Thrombus LA/LAA (N, %)	0	6 (2.2)	0.158
Any aortic atheroma ≥ 4mm (N, %)	2 (2.2)	60 (22.8)	<0.001